

IN THE CLAIMS

Claims 1-48 (canceled)

Claim 49 (currently amended): A method of screening a combinatorial library of materials comprising:

mechanically perturbing an array of a plurality of materials by contacting at least two of the materials simultaneously with probes; and

monitoring, with a sensor, a force exerted by each of the materials in response to the mechanical perturbations; and

relating the monitored force to a physical property.

Claim 50 (previously amended): The method of claim 49, wherein the monitoring step comprises measuring, with the sensor, forces exerted on the probes by the materials as functions of displacement of a portion of the material or displacement of the probe.

Claim 51 (previously amended): The method of claim 49, wherein the monitoring step comprises measuring, with the sensor, forces exerted on the probes by the materials as functions of time.

Claim 52 (currently amended): The method of claim 49, wherein the physical property is selected from the group consisting of further comprising relating the monitored force to flexure, uniaxial extension, biaxial compression, shear, indentation, stress and strain at failure, tack, loop tack, melt flow index, Young's modulus, hardness, viscosity, storage modulus, loss modulus or and combinations thereof of the material.

Claim 53 (previously amended): The method of claim 49, wherein at least twelve materials are simultaneously mechanically perturbed.

Claim 54 (previously amended): The method of claim 49, wherein at least forty-eight materials are simultaneously mechanically perturbed.

Claim 55 (previously amended): The method of claim 49, wherein at least ninety-six materials are simultaneously mechanically perturbed.

Claims 56-58 (canceled)

~~Claim 59: (currently amended): The method of claim 49, wherein the probes comprise a test fixture~~ A method of monitoring a combinatorial library of materials comprising:

mechanically perturbing an array of a plurality of materials by contacting at least two of the materials simultaneously with probes; and

monitoring, with a sensor, a force exerted by each of the materials in response to the mechanical perturbations.